

Amendments to the Claims

The following Listing of Claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) A method for synchronizing data on a device in communication with a client system, said method comprising ~~the steps of:~~

receiving notification that a device, in communication with a client system via a USB connection, is bound in part to a port number within a virtual communication channel;

(a) mapping, responsive to receipt of the notification, ~~a the device in communication with a client system via a USB connection~~ into a user session hosted by a server, ~~said user session including an executing instance of an application, said server communicating in communication~~ with said client system ~~via using~~ a presentation-level protocol; and

executing, by said server within the user session, an instance of an application; and

(b) synchronizing a collection of data on said device ~~in communication with the client system~~ with a collection of data accessible from said user session as a result of the execution of said application instance.

2. (Currently amended) The method of claim 1 wherein mapping the device further comprises mapping a said device ~~in communication communicating~~ with the client system ~~via uses~~ a WI-FI communication protocol.

3. (Currently amended) The method of claim 1 wherein mapping the device further comprises mapping a said device ~~communicating in communication~~ with the client system ~~via uses~~ an IR serial communication protocol.

4. (Currently amended) The method of claim 1 wherein said device communicates in ~~communication with the client system using~~ uses a Bluetooth serial communication protocol.

5. (Currently amended) The method of claim 1 wherein said device communicates in

communication with the client system ~~communicates~~-using a wireless USB/ultra-wideband wireless communication protocol.

6. (Currently amended) The method of claim 1 ~~wherein further comprising:~~

synchronizing a collection of data on the device with a collection of data accessible from the user session as a result of the execution of an application instance that said application instance uses socket communication for inter-process communications; and

~~step (b) further comprises the step of: (b-1) hooking a socket call within the user session.~~

7. (Original) The method of claim 6 wherein said hooking is virtual loop-back address hooking.

8. (Original) The method of claim 6 wherein said hooking is virtual IP address hooking.

9. (Currently amended) The method of claim 1 ~~wherein further comprising:~~

synchronizing a collection of data on the device with a collection of data accessible from the user session as a result of the execution of an application that said application uses socket communication for inter-process communications; and

~~step (b) further comprises the step of: (b-1) hooking a socket call on the server console.~~

10. (Currently amended) The method of claim 1, further ~~comprising the further step of:~~ binding, at the client system, an identifier of the a-virtual communication channel to a mapping request prior to mapping the device to a user session.

11. (Original) The method of claim 1 wherein the client system is a proxy client.

12. (Original) The method of claim 11 wherein the proxy client is hosted on the same server supporting the user session.

13. (Original) The method of claim 11 wherein the proxy client is hosted on a different server than the server supporting the user session.

14. (Currently amended) A method for synchronizing data on a device in communication with a client system, said client system ~~in communication~~ communicating with a server using a presentation-level protocol, said method comprising ~~the steps of:~~

a) ~~determining the identity of a device in communication with said client system;~~
b) ~~determining that the device is a member of a registered device class;~~
creating a notification indicating that the device is in communication with the client system and that the device is bound in part to a port number within a virtual communication channel;

directing the notification to an instance of an application executing within a user session hosted by the a-server and

e) ~~synchronizing a collection of data on said device in communication with the client system~~ with a collection of data accessible from said user session as a result of the execution of said application instance.

15. (Currently amended) The method of claim 14 wherein the device ~~is in communication~~ communicates with the client system via one of a USB communication protocol and a wireless USB/ultra-wideband wireless communication protocol.

16. (Original) The method of claim 14 wherein the device is in communication with the client system via an IR serial communication protocol.

17. (Original) The method of claim 14 wherein the device is in communication with the client system via a Bluetooth serial communication protocol.

18. (Currently amended) The method of claim 14 further comprising:

directing the notification to an instance of an application that wherein said application instance uses socket communication for inter-process communications; and
~~step (e) further comprises the step of: (e-1) hooking a socket call within the~~ user session.

19. (Currently amended) A system for synchronizing data on a device in communication with a client system, the system comprising:

a client system executing a presentation-level protocol to communicate with a server system, said client system including an event manager to generate event notifications based on a communication received from ~~a the device interfacing interfaced~~ with said client system;

~~a the device in communication communicating~~ with said client system, ~~said device in communication with the client system including~~ and having a collection of data, ~~the device bound in part to a port number within the at least one virtual communication channel;~~

~~a the server system communicating with executing a presentation level protocol to communicate with~~ said client system ~~via a presentation-level protocol~~, and ~~hosting host~~ at least one user session ~~on said server system, said user session~~ executing an instance of an application used to synchronize the collection of data on said device ~~in communication with the client system~~ with a collection of data accessible from said user session.

20. (Original) The system of claim 19 wherein said event manager is a Plug and Play event manager and said event notification is a Plug and Play event notification.

21. (Currently amended) The system of claim 19 further comprising:

~~wherein said an~~ application instance using uses socket communication for inter-process communications, and

the application instance ~~the~~ synchronizing of the collection of data on the client ~~attached device and~~ with the collection of data accessible from the server session ~~hooks~~ and hooking a socket call made by the application instance.

22. (Original) The system of claim 21 wherein the socket call is hooked within the user session.

23. (Original) The system of claim 21 wherein the socket call is hooked using virtual IP address hooking.

24. (Original) The system of claim 21 wherein the socket call is hooked using virtual loop-back address hooking.

25. (Currently amended) ~~An article of manufacture having embodied thereon~~ A computer-

readable medium having instructions executable by a processor to synchronize program means ~~for synchronizing data on devices communicating with a client system with data on a~~ accessible ~~from a server, the computer readable medium comprising:~~

instructions for receiving a notification that a device, in communication with a client system via a USB connection, is bound in part to a port number within a virtual communication channel;

instructions computer readable program means for mapping, responsive to receipt of the notification, a the device in communication with a client system via a USB connection into a user session hosted by a server, said server in communication communicating with said client using via a presentation-level protocol; and

instructions for executing, by the server within the user session, an instance of an application; and

instructions computer readable program means for synchronizing a collection of data on said device in communication with the client system with a collection of data accessible to said user session as a result of the execution of said application instance.

26. (Currently amended) The computer readable medium article of manufacture of claim 25 wherein said device communicates is in communication with the client system using a wireless USB/ultra-wideband wireless communication protocol.

27. (Currently amended) The computer readable medium article of manufacture of claim 25 wherein said device communicates is in communication with the client system using an IR serial communication protocol.

28. (Currently amended) The computer readable medium article of manufacture of claim 25 wherein said device communicates is in communication with the client system via a Bluetooth serial communication protocol.

29. (Currently amended) The computer readable medium article of manufacture of claim 25 further comprising:

~~instructions for executing an instance of an application using wherein said application instance uses socket communication for inter-process communications; and~~

~~instructions the computer readable program means for synchronizing a collection of data on said device with a collection of data accessible to the user session including instructions in communication with the client system further comprises: computer readable program means for hooking a socket call within the session.~~

30. (Currently amended) The computer readable medium article of manufacture of claim 29 wherein instructions for said hooking include instructions for is-virtual loop-back address hooking.

31. (Currently amended) The computer readable medium article of manufacture of claim 29 28 wherein instructions for said hooking include instructions for is-virtual IP address hooking.

32. (Currently amended) The computer readable medium article of manufacture of claim 25 further comprising:

~~wherein said instructions for executing an instance of an application instance uses using~~ socket communication for inter-process communications; and

~~instructions the computer readable program means for synchronizing a collection of data on said device with a collection of data accessible to the user session including instructions in communication with the client system further comprises: computer readable program means for hooking a socket call on the server console.~~

33. (Currently amended) The computer readable medium article of manufacture of claim 25, further comprising: instructions computer readable program means for binding, at the client system, an identifier of the a-virtual communication channel to a mapping request prior to mapping the device to a user session.

34. (Currently amended) ~~An article of manufacture having embodied thereon~~ A computer-readable medium having instructions executable by a processor to synchronize program means

for a method for synchronizing data on a device, in communication with a client system, with a collection of data accessible from a server, the computer readable medium comprising:

instructions computer-readable program means for determining the identity of a device in communication with the client system via a USB connection, said client system communicating with a server using a presentation-level protocol;

instructions computer-readable program means for determining that the device is a member of a registered device class;

instructions computer-readable program means for creating a notification indicating that the device is in communication with the client and that the device is bound in part to a port number within a virtual communication channel;

instructions computer-readable program means for directing the notification to an instance of an application executing within a user session hosted by a server; and

instructions computer-readable program means for synchronizing a collection of data on said device in communication with the client system with a collection of data accessible to said server as a result of the execution of said application instance.

35. (Currently amended) The computer readable medium ~~article of manufacture~~ of claim 34 wherein the device communicates ~~is in communication~~ with the client system using a wireless USB/ultra-wideband wireless communication protocol.

36. (Currently amended) The computer readable medium ~~article of manufacture~~ of claim 34 wherein the device communicates ~~is in communication~~ with the client system via an IR serial communication protocol.

37. (Currently amended) The computer readable medium ~~article of manufacture~~ of claim 34 wherein the device communicates ~~is in communication~~ with the client system via a Bluetooth serial communication protocol.

38. (Currently amended) The computer readable medium ~~article of manufacture~~ of claim 34 further comprising:

instructions for directing the notification to an instance of an wherein said application that instance uses socket communication for inter-process communications; and instructions for the computer-readable program means for synchronizing a collection of data on said device in communication with the client system including instructions further comprises: computer-readable means for hooking a socket call within the user session.

39. (Currently amended) The computer readable medium article of manufacture of claim 38 wherein instructions for hooking include instructions for hooking the socket call is hooked on the server console.

40. (Currently amended) A method for synchronizing data on a device in communication with a client system, said method comprising ~~the steps of:~~

a) ~~determining the identity of the a device in communication with the client system via a USB connection;~~

b) ~~determining that the device is a member of a registered device class;~~
creating a notification indicating that the device is in communication with the client system and that the device is bound in part to a port number within a virtual communication channel;

directing the notification to an application executing on a server communicating with the client system via a presentation-level protocol; and

e) ~~synchronizing a collection of data on said device in communication with the client system~~ with a collection of data accessible from said server as a result of the execution of said application.

41. (Currently amended) The method of claim 40 wherein the device communicates is in communication with the client system using an IR serial communication protocol.

42. (Currently amended) The method of claim 40 wherein the device communicates is in communication with the client system via a Bluetooth serial communication protocol.

43. (Currently amended) The method of claim 40 wherein the device communicates is in

~~communication~~ with the client system via a ~~wireless~~-USB/ultra-wideband wireless communication protocol.

44. (Currently amended) A system for synchronizing data on a device in communication with a client system, comprising:

a client system communicating with a server system via a presentation-level protocol, said client system including an event manager to generate event notifications based on a communication received from a the device interfacing interfaced with said client system via a USB connection;

a the device communicating in communication with said client system and having a collection of data, said device ~~in communication with the client system~~ including a collection of ~~data bound in part to a port number within the at least one virtual communication channel~~;

a the server system communicating with said client system and executing an application used to synchronize the collection of data on said device ~~in communication with the client system~~ with a collection of data accessible to said server.

45. (Original) The system of claim 44 wherein said event manager is a Plug and Play event manager and said event notification is a Plug and Play event notification.

46. (Currently amended) A method for synchronizing data on a device in communication with a client system, said method comprising ~~the steps of~~:

~~(a)~~ providing a client system communicating with a server via using a presentation-level protocol;

~~(b)~~ intercepting at least one device enumeration method in a session hosted by the server, said enumeration method enumerating at least one device communicating with the client; receiving notification that the at least one device is bound in part to a port number within a virtual communication channel;

~~(c)~~ mapping, responsive to receipt of the notification, said at least one device ~~in communication with a client system~~ into a user session hosted by the server based on the results of said enumeration method, said user session including an executing instance of an application; and

(d) synchronizing a collection of data on said ~~at least one device in communication with the client system~~ with a collection of data accessible from said user session as a result of the execution of said application instance.

47. (Currently amended) The method of claim ~~46~~ 45 wherein said device ~~in communication communicates~~ with the client system ~~via is communicating over~~ a USB connection.

48. (Currently amended) The method of claim 46 wherein said enumeration method is intercepted via a hook DLL.